

REMARKS

The copy of the Form PTO-1449 attached to the Office Action contains Examiner's initials for only the listed U.S. patent references. No initials were placed by the non-patent references (references Q, R, S, T listed on the Form PTO-1449). Applicant respectfully requests that the Examiner's initials be placed by references Q-T.

In the Office Action dated December 1, 2005, claims 1-16, 22, and 24 were rejected under 35 U.S.C. § 103 over "CDMA/HDR: A Bandwidth-Efficient High-Speed Wireless Data Service for Nomadic Users," IEEE Communication Magazine, July 2000 (Bender) in view of U.S. Patent No. 6,292,539 (Eichen) and U.S. Patent No. 6,819,746 (Schneider); claims 17-21, 23, and 25 were rejected under § 103 over Schneider alone; and claims 26 and 27 were rejected under § 103 over Eichen in view of Schneider.

Claim 1 has been cancelled without prejudice to render the rejection of the claim moot.

Claim 2 has been amended from dependent form to independent form, with the scope of claim 2 remaining *unchanged*. Claim 2 was rejected as being obvious over the asserted combination of Bender, Eichen, and Schneider. It is respectfully submitted that a *prima facie* case of obviousness has not been established with respect to claim 2 for at least the following two reasons: (1) no motivation or suggestion existed to combine the teachings of the references; and (2) the references when combined do not teach or suggest all claim elements. *See* M.P.E.P. § 2143 (8th ed., Rev. 3), at 2100-135.

Point (2) is addressed first. With respect to the subject matter of claim 2, the Office Action conceded by neither Eichen nor Bender discloses comparing the calculated data communications speed and the actual data communications speed to determine if the records are accurate. 12/1/2005 Office Action at 2-3. However, the Office Action cited Schneider as disclosing this element. Applicant respectfully disagrees. Schneider teaches the use of an expert system that accesses information contained in a database 14 (which stores characteristic data and performance data) to produce a predicted data rate for a subscriber loop in response to a request for xDSL service on the subscriber loop. The database 14 of Schneider retrieves information from legacy data systems 11 regarding cable make-up of various lines throughout an area of operation. Schneider, 7:48-49. The database 14 also stores information regarding cable make-up from legacy test systems 12. Schneider, 7:65-8:2. Moreover, the database 14 of Schneider

receives DSL loop performance data from a DSLAM. Schneider, 8:12-16. The combination of the characteristic data from legacy data system 11, legacy test system 12, and performance data from the DSLAM, form a collection of data that is used for training the expert system, which can be a neural network. Schneider, 8:28-35. The trained expert system then is able to predict the data rates for a subscriber loop in response to a request for an xDSL service from a customer. When a new loop is placed into service, actual performance data for the loop is provided, which then can be added to the database 14 to further train the expert system. Schneider, 9:8-14. In this manner, the expert system of Schneider continues to be trained so that the expert system is better able to predict data rates for future subscriber loops.

Note, however, that adding performance data regarding a new subscriber loop that has just been placed into service to the database 14 of Schneider for the purpose of further training the expert system does not constitute and does not suggest comparing a calculated data communications speed and the actual data communications speed to determine if records are accurate.

Moreover, the Office Action conceded that neither Bender nor Eichen teaches generating a value for updating the records in response to a difference between the calculated data communications speed and actual data communications speed. Again, the Office Action relied upon Schneider as disclosing this feature, citing specifically to column 4, lines 38-40 and 42-45. The cited passages refer to training of the expert system based on the characteristic data and the known performance data, and applying the expert system to an input characteristic data to develop performance prediction for a loop that is being qualified. These cited passages clearly do not teach or suggest generating a value for updating the records (which are the records used for high-speed access qualification from which data communications speed of a communications channel is calculated) in response to a difference between the calculated data communications speed and the actual data communications speed.

In view of the foregoing, it is clear that the hypothetical combination of Bender, Eichen, and Schneider clearly does not teach or suggest the subject matter of claim 2. A *prima facie* case of obviousness has thus not been established for at least this reason.

Moreover, no motivation or suggestion existed to combine the teachings of Bender, Eichen, and Schneider. While Eichen and Schneider are related to qualifying subscriber loops,

Bender is directed to a completely different topic, namely the ability of mobile stations in a cellular network to receive pilot bursts from a base station and to predict a signal-to-noise ratio (SNR) based on the pilot bursts. Bender states that this value of the SNR is mapped to a maximum data rate that can be supported in the radio frequency (RF) link between the base station and mobile station. The ability of a mobile station to determine a maximum data rate supportable by an RF link has nothing to do with the subscriber loop qualification systems in Eichen and Schneider. Clearly, there existed no desirability to incorporate a mobile station (of a cellular network) into the subscriber loop qualification systems of Eichen and Schneider. *See In re Fritch*, 972 F.2d 1260, 1266, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992) (“The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the *desirability* of the modification.”) (emphasis added). Clearly, in this case, it is unclear what use a wireless mobile station would have in the subscriber loop qualification systems of Eichen and Schneider. A person of ordinary skill in the art clearly would not have recognized any desirability of incorporating the mobile stations of Bender into the systems of Eichen and Schneider. In view of the foregoing, it is respectfully submitted that no motivation or suggestion existed to combine the teachings of Bender, Eichen, and Schneider. A *prima facie* case of obviousness is defective for this additional reason.

Independent claim 17 was rejected as being obvious over Schneider alone. The Office Action cited column 20, lines 4-5, of Schneider as disclosing a storage medium containing instructions as recited in claim 17. The Office Action then cited claims 1 and 2 of Schneider with respect to the remaining elements of claim 17. In the context of the obviousness rejection of claim 17, the Office Action failed to provide any motivation to suggest a modification of Schneider to achieve the claimed subject matter. This is a clear defect in the obviousness rejection.

Claim 1 of Schneider recites a system for qualifying a loop that has a database of records regarding loops in service, where the database of records contains characteristic data and performance data. The system of claim 1 of Schneider also recites an expert system to learn a plurality of statements correlating to the predetermined characteristic data and performance data. The expert system receives as input characteristic data regarding a loop to be qualified, and in

response to the input, the expert system applies the learned statement to the input characteristic data to develop a prediction of the digital subscriber line service performance data for the loop without testing the loop to be qualified for digital subscriber line performance. Claim 2 of Schneider recites a service area of an office that provides services for respective loops and for the loop to be qualified. There is absolutely no indication in claims 1 and 2 of Schneider of determining variance between a predicted data communications speed of the communications channel based on the records and an actual data communications speed of the communications channel, or updating the records based on the determined variance. Therefore, it is respectfully submitted that the obviousness rejection of claim 17 is defective.

Moreover, as indicated above, the remaining sections of Schneider clearly also do not teach or suggest the subject matter of claim 17. There is no evidence that would have provided any suggestion to modify Schneider to perform either the determining or updating acts of claim 17. In view of the foregoing, it is respectfully submitted that a *prima facie* case of obviousness has not been established with respect to claim 17 over Schneider alone.

Independent claim 26 was rejected as being obvious over Eichen and Schneider. The Office Action conceded that Eichen fails to disclose a controller to update records to reduce a variance between the calculated bandwidth and the estimated bandwidth. 12/1/2005 Office Action at 16-17. However, the Office Action relied upon Schneider as disclosing the growing or updating of a database. However, note that the growing or updating of the database 14 in Schneider does not constitute a controller comparing an estimated bandwidth with an actual bandwidth and updating records to reduce a variance between the calculated bandwidth and the estimated bandwidth in response to the comparing. There is no suggestion of this last clause of claim 26 in either Eichen or Schneider. Therefore, it is respectfully submitted that the hypothetical combination of Eichen and Schneider fails to teach or suggest all elements of claim 26.

Dependent claims are allowable for at least the same reasons as corresponding independent claims. In view of the allowability of base claims, it is respectfully submitted that the obviousness rejections of the dependent claims have also been overcome.

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Allowance of all claims is respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 14-0225 (14962STUS01U).

Respectfully submitted,

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Dan C. Hu
Registration No. 40,025
TROP, PRUNER & HU, P.C.
8554 Katy Freeway, Suite 100
Houston, TX 77024
Telephone: (713) 468-8880
Facsimile: (713) 468-8883